

REMARKS

In the Office Action the Examiner noted that claims 1-15 are pending in the application and the Examiner rejected all claims. By this Amendment, claims 1-2 and 4-15 have been amended. In addition, claims 16-19 have been added. Thus, claims 1-19 are pending in the application. No new matter has been presented. The Examiner's rejections are traversed below.

Rejection of Claims 1-15

In item 1 on pages 2-4 of the Office Action the Examiner rejected claims 1-15 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,923,673, issued to Henrikson (hereinafter referred to as "Henrikson").

Henrikson discloses a physical connection that is part of an IEEE 1394 interface card (Column 3, Lines 25-38). The Examiner cites this as "a physical layer circuit serving as a physical interface without being given an identification number when the serial bus interface device is connected to the serial bus (see figure 1 and column 3 lines 28-38, physical interface 22 for connecting peripheral devices 34-44, and the physical layer does not have an identification number when peripheral devices is connected to the bus because the physical interface 22 is already configured and implemented in the computer system before the peripheral devices are being connected to the serial bus)." The Applicant respectfully disagrees with the Examiner's assessment of Henrikson.

The Examiner states that the "physical layer circuit is not given an identification number when the serial bus interface device is connected to the serial bus." However, Henrikson discloses "[a]n IEEE 1394 serial bus network data capture and analyzer device is coupled as a device within an IEEE 1394 serial bus network for monitoring, capturing and analyzing communications between other devices over the IEEE 1394 serial bus network" (Column 2, Line 63 through Column 3, Line 1). As a matter of fact, Henrikson repeatedly refers to the capture and analyzer unit being added to the network as a "device" (Column 3, Lines 28-38, Column 6, Lines 47-50). And "[i]f a device is so added or removed the bus will then automatically reconfigure itself for transmitting data between the then existing nodes. A node is considered a logical entity with a unique address on the bus structure. Each node provides an identification ROM, a standardized set of control registers and its own address space (Column 1, Lines 30-

35). Therefore, contrary to the Examiner's statement, the physical layer circuit is obviously given an identification number. Nowhere in Henrikson is it indicated that the physical layer circuit is not given an identification number.

This is in contrast to the present invention, in which amended claim 1 recites "[a] serial bus interface device having a function of automatically reconstructing a topology when the device is inserted or withdrawn during operation of a serial bus, comprising a physical layer circuit serving as a physical interface without being given an identification number during the operation of the serial bus after the serial bus interface device is connected to the serial bus." This allows the device to be inserted or withdrawn without exerting an influence on the serial bus topology.

The Examiner states that "the physical layer does not have an identification number when peripheral devices is connected to the bus because the physical interface is already configured and implemented in the computer system before the peripheral devices are being connected to the serial bus." If this is true, then Henrikson does not disclose "[a] serial bus interface device having a function of automatically reconstructing a topology when the device is inserted or withdrawn during operation of a serial bus," as is claimed in amended claim 1 and original claim 3. Therefore, it is submitted that claims 1 and 3 patentably distinguish over Henrikson.

Claims 2, 5-9, and 15 depend from claim 1 and include all of the features of that claim plus additional features which are not taught or suggested by Henrikson. Claims 4 and 10-14 depend from claim 3 and include all of the features of that claim plus additional features which are not taught or suggested by Henrikson. Therefore, it is submitted that claims 2 and 4-15 also patentably distinguish over Henrikson.

New Claims 16-20

New claim 16 is directed to a serial bus interface device according to claim 1 in which "the identification number is not assigned to the physical layer circuit during a self-identifying operation."

New claim 17 is directed to a serial bus interface device according to claim 1 in which "the physical layer circuit serves as the physical interface without being given an identification number after a self-identifying operation."

New claim 18 is directed to a "serial bus interface device having a function of automatically reconstructing a topology when the device is inserted or withdrawn during operation of a serial bus, comprising a physical layer circuit transmitting and receiving packets without being given an identification number after the serial bus interface device is connected to the serial bus."

New claim 19 is directed to a "serial bus interface device having a function of automatically reconstructing a topology when the device is inserted or withdrawn during operation of a serial bus, comprising a physical layer circuit serving as a physical interface without being given an identification number after a self-identifying operation."

New claim 20 is directed to a "method of simulating a plurality of identification numbers on a serial bus, the method comprising:

adding a serial bus interface device to the serial bus, wherein the device has a function of automatically reconstructing a topology when the device is inserted or withdrawn during operation of the serial bus, and

assigning a plurality of identification numbers to a physical layer circuit serving as a physical interface of the device when the device is connected to the serial bus."

Therefore, it is submitted that claims 16-20 patentably distinguish over the prior art.

Summary

There being no further outstanding objections or rejections, it is submitted that claims 1-20 are in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.



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If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on September 8, 20 03.
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